

Claims

1. Method for preparing a conductive electrode comprising applying a precursor for electrocatalytic or protective coatings on a conductive electrode substrate, irradiating said conductive electrode substrate and said precursor less than about 10 minutes with near infrared (NIR) radiation to form an electrocatalytic or protective coating on the conductive electrode substrate.
2. Method as claimed in claim 1, wherein the conductive electrode substrate and the precursor are irradiated less than about 5 minutes.
3. Method as claimed in claim 1, wherein several electrocatalytic or protective coatings are formed on the conductive electrode substrate by repeating the method of claim 1.
4. Method as claimed in claim 1, wherein the precursor is at least one organic or inorganic salt, or mixture of salts comprising at least one metal selected from at least one of ruthenium, iridium, platinum, rhodium, palladium, titanium, zirconium, hafnium, tantalum, niobium, tin or mixtures thereof.
5. Method as claimed in claim 1, wherein the conductive electrode substrate is an at least partly deactivated conductive electrode.
6. Method as claimed in claim 1, wherein the precursor is present in an aqueous solution.
7. Method as claimed in claim 1, wherein the precursor is present in an organic solution.
8. Method as claimed in claim 1, wherein the conductive electrode substrate and the precursor are irradiated in the wavelength region from about 780 nm to about 2500 nm.
9. Method as claimed in claim 1, wherein the conductive electrode substrate and the precursor are irradiated in the wavelength region from about 780 nm to about 1200 nm.
10. Method as claimed in claim 1, wherein the conductive electrode substrate is irradiated with an energy density ranging from about 0.1 to about 2 kW/m² irradiated conductive electrode substrate.
11. Method as claimed in claim 1, wherein the conductive electrode substrate is irradiated with an energy density ranging from about 0.1 to about 1 kW/m² irradiated conductive electrode substrate.
12. Method for preparing a conductive electrode comprising applying a precursor for electrocatalytic or protective coatings on a conductive electrode substrate, irradiating said conductive electrode substrate and said precursor with near infrared (NIR)

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radiation in the wavelength region from about 780 nm to about 2500 nm to form an electrocatalytic or protective coating on the conductive electrode substrate.

13. Conductive electrode obtained by a method comprising applying a precursor for electrocatalytic or protective coatings on a conductive electrode substrate, irradiating
5 said conductive electrode substrate and said precursor less than about 10 minutes with near infrared (NIR) radiation to form an electrocatalytic or protective coating on said conductive electrode substrate.

14. Conductive electrode according to claim 13, wherein said conductive electrode and the precursor are irradiated less than about 5 minutes.